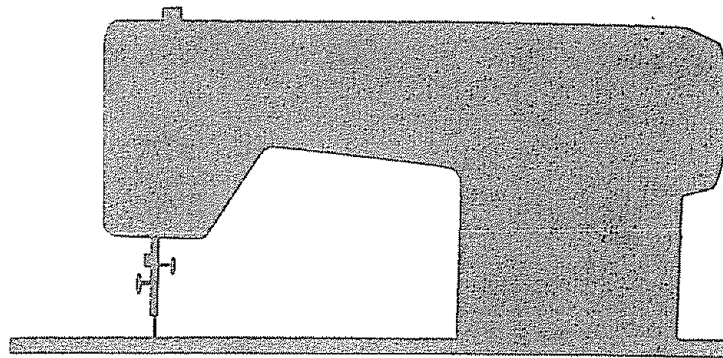


Kenmore

I N S T R U C T I O N S

MODEL 15/1649

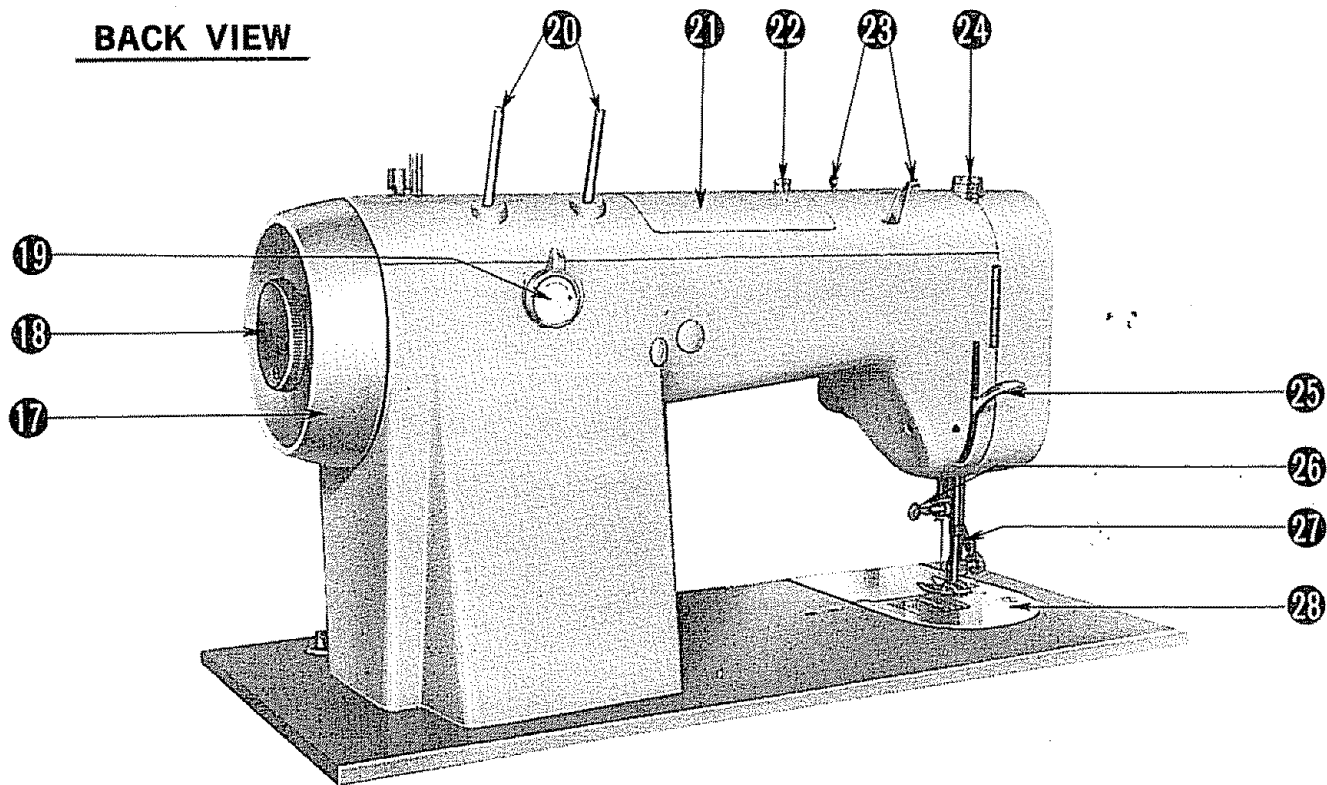


ZIG-ZAG SEWING MACHINE

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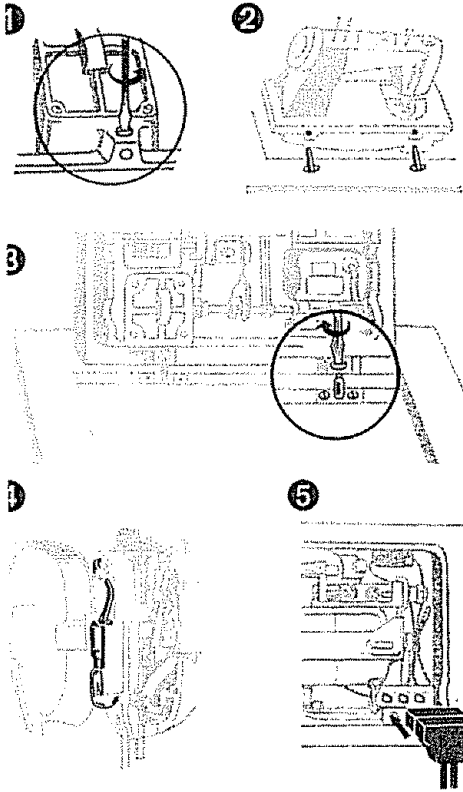
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BACK VIEW



- 17. Hand Wheel
- 18. Clutch Knob
- 19. Buttonhole Reverse Stitch Length Control
- 20. Upper Thread Spool Pins
- 21. Pattern Disc Shaft Cover
- 22. Bobbin Winder Tension Disc

- 23. Upper Thread Guides
- 24. Presser Foot Knob
- 25. Presser Foot Lever
- 26. Needle Clamp Screw
- 27. Thread Cutter
- 28. Needle Plate



INSTALLING MACHINE HEAD IN PORTABLE AND CABINET

Loosen the two hinge screws under holes in the rear edge of the machine bed (1). Raise hinge pins in the cabinet cutout (2). Slip machine head onto the pins and tighten hinge screws securely (3). Lower machine head to front flap.

Screw spool pins in place. Lay the plastic discs over the spool pins. Discs and pins are packed in the accessory box.

SEWING LIGHT

The sewing light is located inside the face cover plate as shown. It may be turned on or off by pushing the light switch. In order to operate the machine the switch must be on.

To remove bulb, turn light switch off, open the face cover plate by swinging it open, push bulb in slightly, turn bulb clockwise, and remove from socket. To replace push in new bulb and turn counter clockwise. See illustration 4.

CONNECTING MACHINE

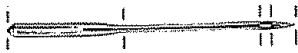
Push the plug onto three-prong connector under the bed plate. Plug machine cord into any 110-120V wall outlet. See illustration 5.

NEEDLE AND THREAD TABLE

THREAD SIZE	NEEDLE SIZE	FABRIC
Cotton 60-100 Synthetic Silk A	11	Sheer cottons, silks, and synthetics Fine laces
Cotton 60-80 Mercerized 50 Synthetic Silk A	14	Medium weight cottons Medium weight silks Medium weight synthetics Light weight woolens
Cotton 40-60 Mercerized 50 Mercerized heavy duty	16	Heavy weight cottons Medium to heavy weight woolens Heavy drapery fabrics
Cotton 30-50 Mercerized heavy duty	18	Heaviest cottons as for men's work clothes Heaviest woolen coating

NEEDLE SIZE

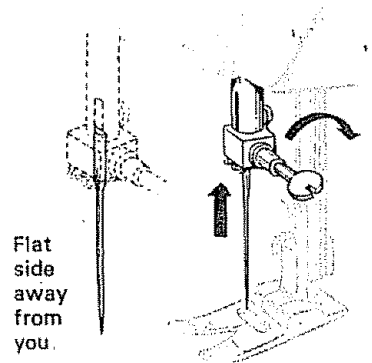
Use KENMORE needles. The size of the needle should conform to the size of the thread and both should be suitable to the material. The same size thread should be used in the bobbin as on the upper part of the machine for ordinary sewing. Never use a bent needle or one with a blunt point.



This is the exact length of the needle to be used in your machine. Comparison with this illustration will determine whether the needle you have is the correct one for your machine.

PLACEMENT OF NEEDLE

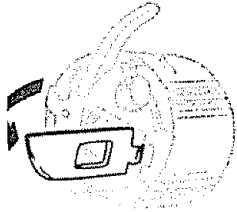
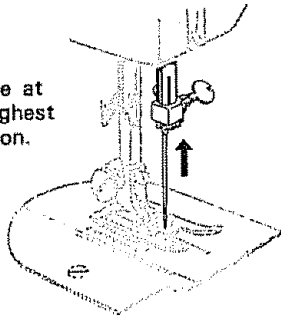
Raise needle bar to its highest position by turning hand wheel toward you. Loosen needle clamp screw. Hold the needle with flat side away from you. Slip the needle as far as it will go into the needle clamp, and tighten the needle clamp screw.



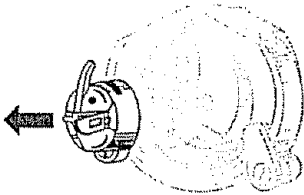
Flat side away from you.

REMOVING BOBBIN CASE FROM SHUTTLE

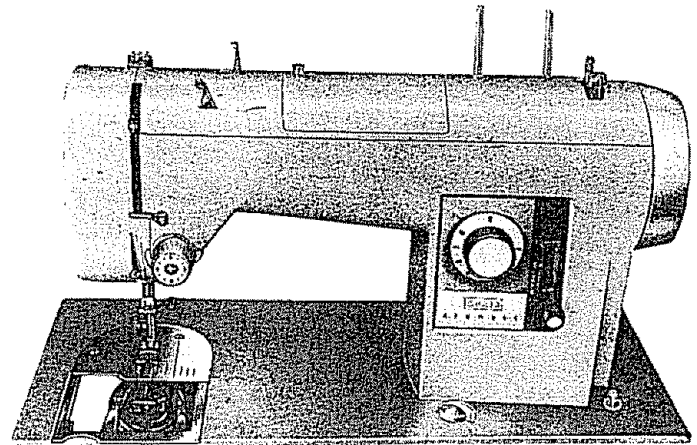
Needle at its highest position.



Pull out latch.



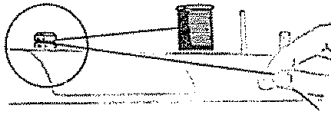
Pull bobbin case straight out.



WINDING THE BOBBIN

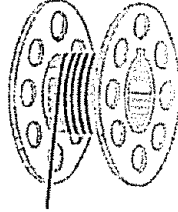
①

Place thread on spool post. Draw thread as shown.



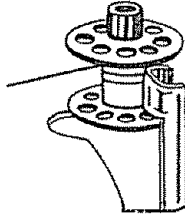
②

Wind thread around bobbin a few times.



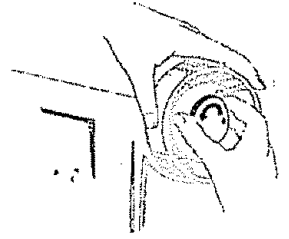
③

Place bobbin onto bobbin winder shaft. Push bobbin winder latch until it clicks.



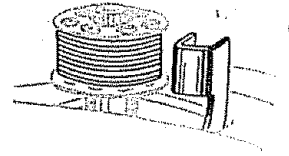
④

Release clutch by turning clutch knob toward you. Start machine.



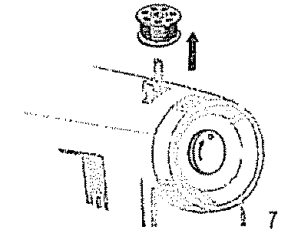
⑤

When bobbin is full, winding mechanism stops.



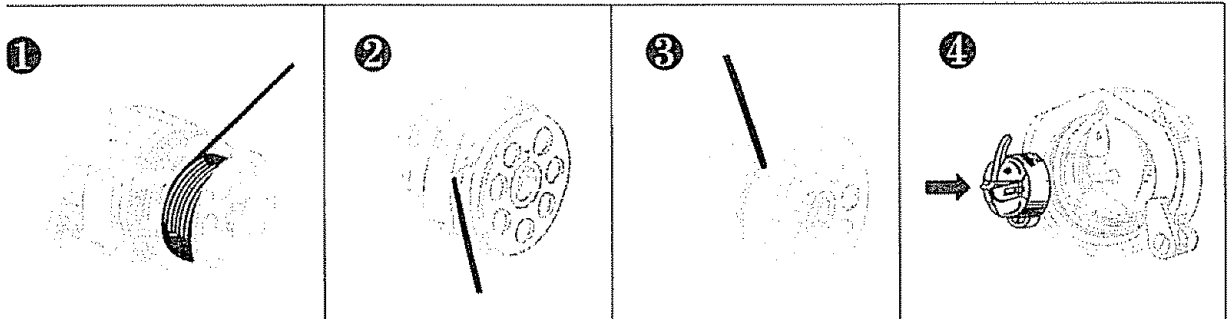
⑥

Tighten clutch knob and remove bobbin.

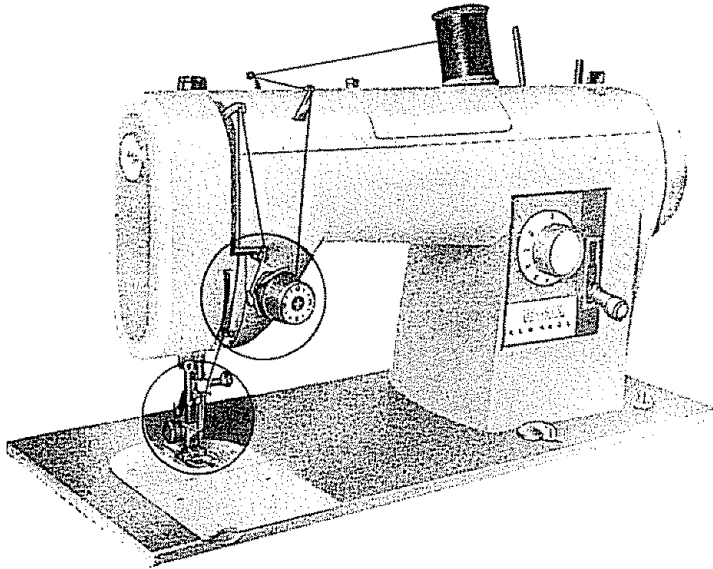


INSERTING BOBBIN INTO BOBBIN CASE CASE INTO SHUTTLE

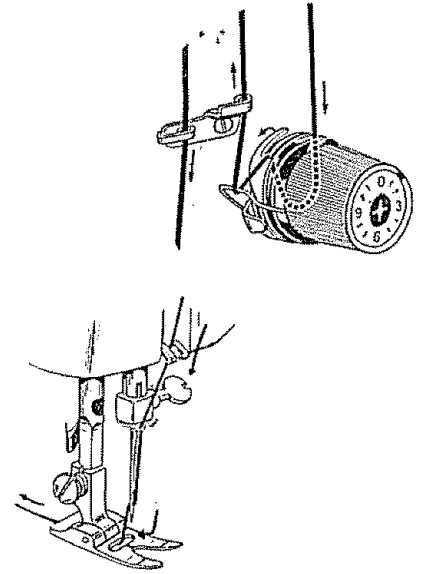
- ① Guide bobbin onto center pin of bobbin case.
- ② Pull thread through slot.
- ③ Pull thread under tension spring.
- ④ Holding latch, position case into shuttle, release latch.

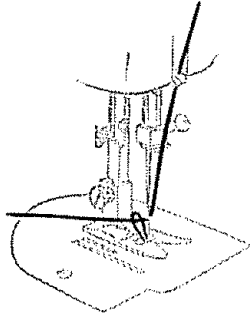


THREADING UPPER MACHINE



Place thread as illustrated between discs of the Thread Tension Assembly. Prevent the spool of thread from turning and by holding the end of the thread pull spring wire loop up and past the top hook until the thread can be slipped into the hook. When thread tension is released, the spring wire loop will return to position as shown with the thread in proper place. Release spool of thread and continue to thread machine as illustrated.





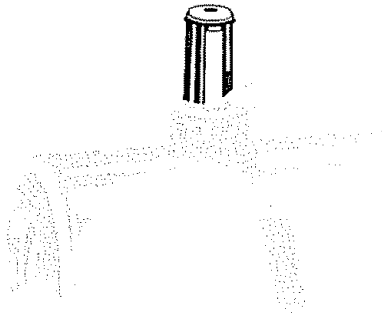
PICKING UP BOBBIN THREAD

Raise presser foot lever.

Hold needle thread loosely in left hand and rotate hand wheel toward you one complete turn.

Bring bobbin thread up by pulling upper thread (See illustration)

Place threads back under presser foot.



ADJUSTING THE PRESSURE OF THE PRESSER FOOT

Push down outer ring of presser foot knob (See illustration). This will release pressure of presser foot. To increase pressure, push down inner pin until suitable pressure is obtained.

For ordinary sewing, the inner pin should be about half way down. When sewing multiple thickness or heavy material, reduce the pressure. Increase it when sewing sheer fabrics.

Insufficient pressure may cause skipped stitches or difficulty in guiding the fabric. If feed dog or presser foot marks appear on the fabric, reduce the pressure.

SETTING STITCH LENGTH

The stitch length lever control the stitch length. Set lever to any desired stitch length position between 0 and 4 by turning knob until the indicator is aligned with the stitch length number desired.

The red mark indicates the setting for a satin stitch. This will vary slightly depending upon the type of material to be sewn. At No. 4 the longest stitch is obtained. The size of stitch you select will depend on fabric you are sewing. Straight stitching is done with stitch width control on 0 setting and by removal of pattern disc.

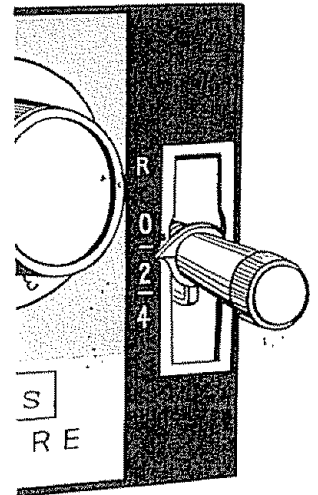
REVERSE STITCHING

Raise lever for reverse stitching. Lower lever for forward stitching. It is best to begin and end most seams with reverse stitching often called back tacking.

BASTING

For accomplishing quicker, more even and firmer basting, we suggest you regulate the machine in the following manner; Set stitch length at No. 4 for the longest possible stitch. Basting is easily removed by pulling bottom thread.

If you prefer to use pins for basting, your KENMORE will sew over the pins. Be sure to keep the pins at right angles to the seam and the head of the pin away from the presser foot. Also reduce pressure on presser foot.



ADJUSTING TENSIONS

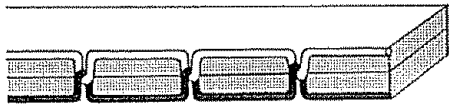


Fig. 1

A perfect stitch will have threads locked between the two layers of fabric with no loops on top or bottom. (Refer to page 34)

PROBLEM		REMEDY	
<p>Upper thread too tight</p> <p>Fig. 2</p>		<p>Decrease Tension</p>	
<p>Upper thread too loose</p> <p>Fig. 3</p>		<p>Increase Tension</p>	

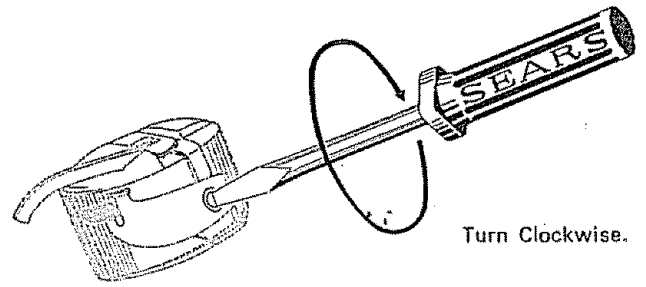
When stitching is unsatisfactory as in figures 2 and 3, adjust the upper thread tension. Lower thread tension requires adjustment less frequently than the upper thread tension.

When stitch is satisfactory, as in figure 1 and seam is badly puckered, the cause may be tight tensions and both upper and lower may be adjusted. (See page 32)

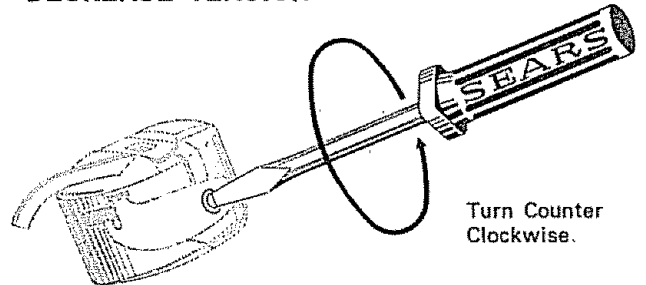
When adjusting the tension on the bobbin case, make slight adjustments with a screwdriver. (See page 32)

It is necessary to reduce the upper thread tension somewhat when doing decorative stitching. As the stitch width is increased, the tension should be decreased. (See page 17)

INCREASE TENSION



DECREASE TENSION



INSERTING AND REMOVING THE MATERIAL

For all kinds of sewing, consult chart page 5

Before placing the material on the machine see that :

- * The presser foot and needle clamp screws are both tight.
- * The sizes of needle and thread suit the kind of work to be done.
- * The needle and take-up lever are at their highest position.
- * The tensions have been properly adjusted.
- * The ends of the threads have been drawn about 4 inches to the rear of the machine.
- * The feed dog is up.
- * Stitch length and width controls are set at desired settings.

Experiment by sewing on the fabric to be used to determine tension adjustments and correct stitch settings.

Place material under the presser foot, insert the needle into the material by turning the hand wheel toward you, lower presser foot and start sewing. To facilitate placement of heavy fabrics under the presser foot, the presser foot lever can be raised beyond the normal "up" position.

To remove the work, first turn hand wheel toward you until needle is at its highest position, then raise the presser foot, draw material to the rear and cut off excess thread with the thread cutter located on the presser bar.

IMPORTANT : Always turn the hand wheel toward you! When machine is not being used, place a piece of material over the feed dog and lower the presser foot. Always have fabric under the presser foot when operating the machine. Operating threaded machine without fabric will cause it to jam by forcing thread into the shuttle. See pages 28 & 29

CHANGING THE PRESSER FOOT

The various attachment feet available for certain kinds of work are to be fastened to the presser bar.

To attach the foot, raise the presser bar to its highest position by raising the presser foot lever. Loosen the presser foot thumb screw, choose the proper foot, insert from the front. Tighten the screw using the large screw driver and make sure that the foot is secure.

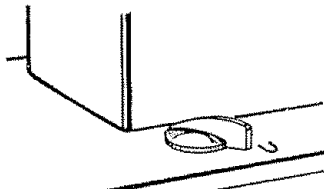
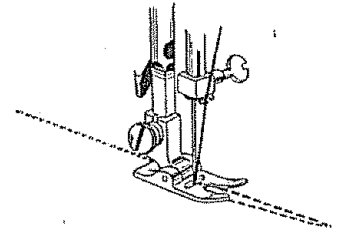
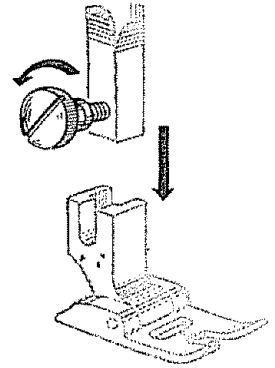
TURNING A CORNER

Stop sewing machine with needle in fabric. Raise presser foot. Turn fabric. Lower presser foot and continue stitching.

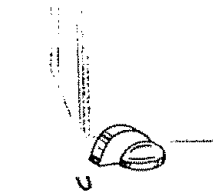
FASTENING A SEAM

Be sure both threads are drawn back under the presser foot. Lower needle into fabric about $\frac{1}{2}$ inch from beginning of seam. Push stitch length control lever up for reverse stitching. Stitch in reverse until needle reaches beginning of seam.

Move stitch length control lever down for forward stitching and complete seam. When you reach the end, raise the stitch length control lever and sew back over $\frac{1}{2}$ inch of completed seam.



Models 151, 152, 1649



Model 150

FEED DOG CONTROL

The feed dog control knob is situated on the right front of machine bedplate. When knob is turned to the other side of "U" mark, feed dog drops and does not pull material. This allows the operator freedom of movement of material, as for darning. For regular sewing, turn knob to the "U" mark (Feed dog up).

ZIGZAG CONTROL

SETTING STITCH WIDTH

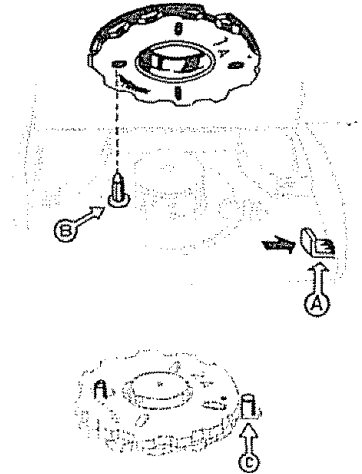
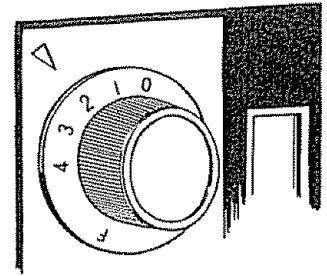
Insert disc # 1A. Turn the stitch width knob to the desired setting between 0 and 4 on the knob. Zigzag stitch width increases from 1 to 4. Straight stitching is done with stitch width control on 0 setting and by removal of pattern disc.

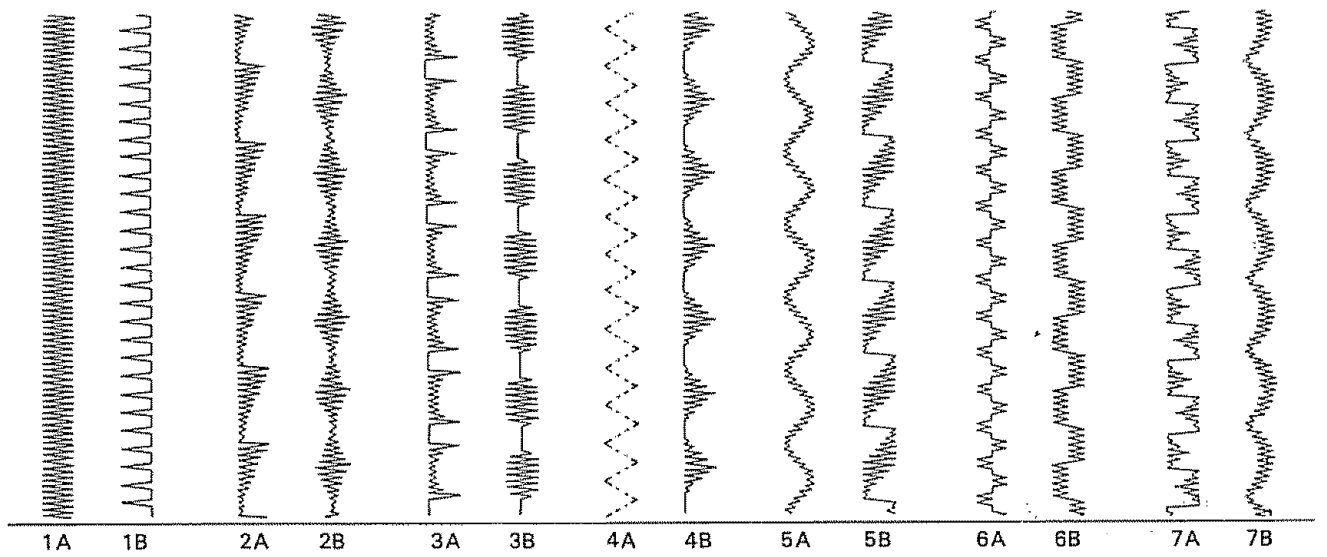
INSERTING PATTERN DISC

1. Turn hand wheel so that the needle is in its highest position
2. Pull pattern disc shaft cover open
3. Push cam follower release lever **X** to the right and keep it there during insertion.
4. Grasp pattern disc and slip disc onto the shaft. Make sure the retaining pin **ⓐ** enters hole in disc. To start a pattern at the beginning, align the white dot on the disc with the cam follower **ⓑ**. To do this, slip the disc onto the shaft so the white dot is at or as near (counterclockwise) the cam follower as possible. If the white dot is not aligned with the cam follower, turn the hand wheel toward you until the dot is aligned. (If the machine is threaded, be sure to place a scrap of fabric under the presser foot)
5. To remove the pattern disc, follow steps 1 and 2. grasp disc and pull from shaft.

There are two different patterns on each disc. A picture of each pattern is on the disc surface. Position disc into machine with desired pattern facing up.

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DECORATIVE STITCHING

This machine enables you to sew beautiful decorative and embroidery stitches by means of various discs supplied with your machine. The movements of the needle are controlled by the disc. Basic decorative stitches are made with stitch width at 4 and stitch length at the red mark on the indicator plate. The latter will vary slightly depending upon the type of material to be sewn. Pattern will be changed if using any other length or width. All patterns also can be made with double needle. See page 25.

It is necessary to reduce the upper thread tension somewhat for decorative stitching. As the stitch width is increased, the tension should be decreased. This will prevent the material from puckering and will prevent the bobbin thread from coming up on the top of the fabric.

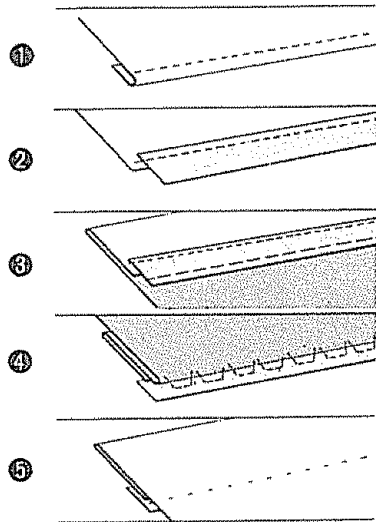
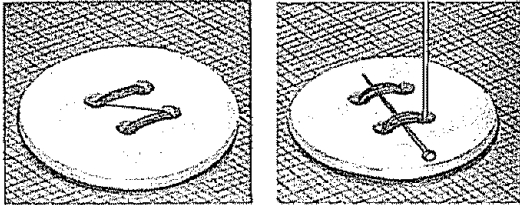
DARNING

WITH PRESSER FOOT :

1. Turn feed dog control to left.
2. Press down outer ring of presser foot knob, see page 10. With presser foot knob in this position, mending, darning, monogram work, etc. may be done.
3. Stretch fabric tightly between two spring embroidery hoops and place under needle.
4. Lower presser bar so thread will have some tension. When you start to darn, move fabric back and forth to cover darning area. Then turn fabric and continue sewing at right angles to the previous stitching. Use medium machine speed. You can make any length stitches desired. Slow movement of fabric will make short darning stitches. Fast movement will make long stitches.
5. When you finish darning, raise presser foot and remove fabric. Increase pressure for general sewing by pressing down inner pin of the presser foot knob. Turn feed dog control to right.

WITHOUT PRESSER FOOT :

1. Turn feed dog control to left.
2. Remove presser foot.
Proceed as directed under steps 3 and 4 above.
3. When you finish darning, raise the presser foot lever and remove fabric. Replace presser foot, and increase pressure for general sewing. Turn feed dog control to right.



SEWING ON BUTTONS Use disc # 1A

Align two holes of button with slot of presser foot and lower foot to hold securely. Drop feed dog. Turn hand wheel by hand until needle point is just above button. Adjust stitch width so that needle will align with a hole of button. Turn hand wheel again by hand so that needle goes into second hole, readjust stitch width if necessary. Stitch a number of times, turning hand wheel manually. Finish sewing with an extra 2 inches of thread, draw thread to reverse side and tie securely.

If using a 4 hole button repeat the above procedure.

NOTE: To make a small thread shank when sewing on a flat button, place a straight pin or needle between the holes of the button.

BLIND STITCHING

Disc # 1B

Stitch width 3

Stitch length 3 (May vary depending on type of material)

- 1 Prepare the hem with a turned and edgestitched finish.
or
- 2 Apply seam tape along the raw edge with either straight or zigzag stitching.
- 3 Turn hem and baste about $\frac{1}{8}$ inch from the edge of the seam tape using longest stitch on the sewing machine.
- 4 Fold garment back along basting line and stitch along garment fold using disc # 1B
- 5 Remove basting and press hem. The basting step may be eliminated in a straight hem

BUTTONHOLES

Use disc # 1A and special buttonhole foot
Stitch length at red mark
Buttonhole control knob F
Feed dog control U

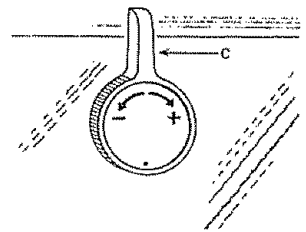
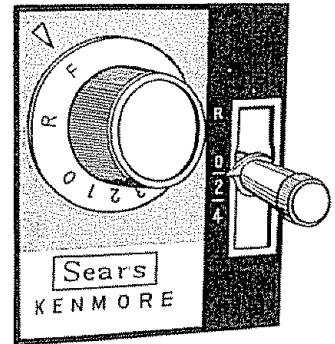
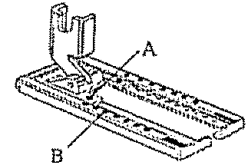
Place the fabric, with the buttonhole length marked at both ends, under the buttonhole foot. Without lowering the foot, let the needle pierce the fabric at the beginning of the buttonhole. Set the foot so the beginning of the red zone (closest to the needle) is at the mark of the opposite end of the buttonhole. Lower the foot.

Stitch forward until the needle reaches the red zone on the front edge of foot. Then turn the knob to R, and stitch the other side of the buttonhole. Turn knob back to F to finish end of buttonhole. The speed with which the knob is turned determines the number of stitches at the ends of the buttonhole. The slower the knob is turned, while sewing, the more stitches are formed. See page 21.

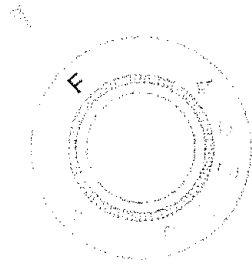
Reproduction of identical size buttonholes is facilitated with the aid of the graduations on the left side of the buttonhole foot. These graduations are $\frac{1}{8}$ inch apart. Just mark the starting points of the buttonholes, let the needle pierce the fabric and set the index mark (A) on the upper portion of the foot at the same graduation mark (B) as it was set for the first buttonhole. Lower the foot. Follow the procedures outlined above.

Always make a practice buttonhole on a scrap of fabric used in the garment, using a double thickness of fabric, and an interfacing if used in garment.

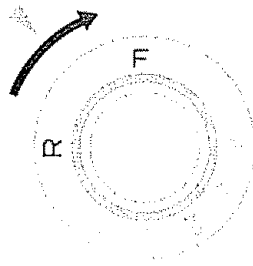
The stitch length may be varied slightly by the stitch length control lever within the 0 to 1 range. To increase forward stitch move this lever from the red mark toward 1, to decrease move it toward the 0. The buttonhole reverse stitch length control (C) is used to match the length of the reverse stitches with the forward stitches. Turn the dial to the minus direction for shorter stitches; to the plus direction for longer stitches. These settings may vary depending on the type of fabric used.



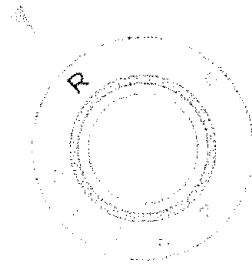
Position 1



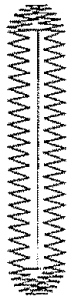
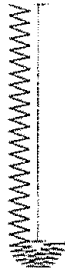
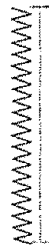
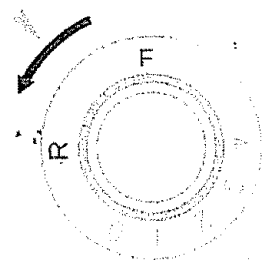
Step 1

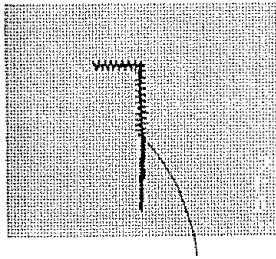
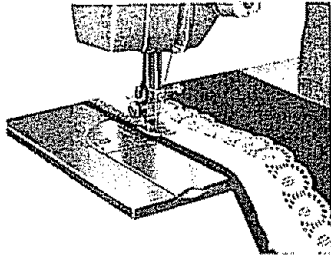
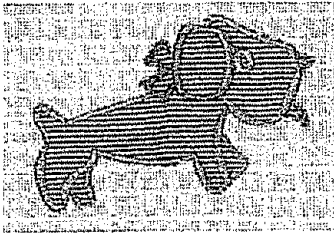


Position 2



Step 2





APPLIQUE Use disc # 1A

Baste cutout applique to fabric. Set stitch width 2 to 4. Set stitch length at the red mark on the indicator plate. Zigzag stitch around applique completely covering the raw edge

SEWING ON LACE Use disc # 1A

Set stitch width to 2. Set stitch length to 2 or 3. Place fabric under the presser foot and position lace $\frac{1}{4}$ inch from edge of fabric. Position fabric and lace so that right stitch catches left edge of lace. Continue stitching so that edge of lace is overcast.

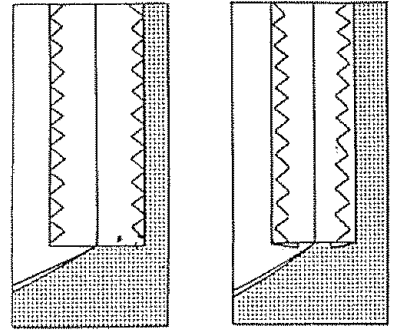
STRAIGHT OR THREE-CORNERED TEAR

Use disc # 4A
Stitch width 4
Stitch length at red mark

Position tear under needle and stitch along the straight tear catching sides of material. When mending a three cornered tear, stitch from each end to center

OVERCASTING Use disc # 1A

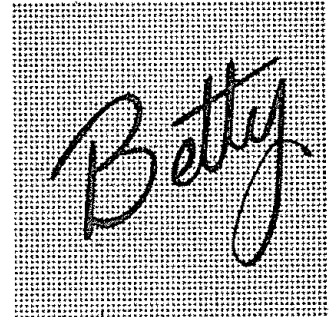
Set stitch width to 4. Set stitch length to about 3. Zigzag stitch around raw edge of fabric to completely cover the edge.



WRITING AND MONOGRAMMING Use disc # 1A

Free hand
Stitch width 0 to 4
Feed dog control Right

Draw initials or words to be sewn on fabric and fit fabric into embroidery hoops. Writing is done with either zigzag or straight stitching. Remove presser foot. Set stitch width for straight or zigzag stitches as desired. Slip hoop and fabric under the needle, lower presser bar and take one stitch to raise bobbin thread through fabric. Using a medium speed, stitch along marked outline, guiding fabric carefully by hands.



DOUBLE NEEDLE



SETTING THE DOUBLE NEEDLE

Raise the needle bar to its highest position and loosen needle clamp screw. Hold double needle assembly with flat side away from you. Slip the needle as far as it will go into needle clamp, and tighten the screw.

THREADING THE DOUBLE NEEDLE

Place a spool of thread on each spool pin. Draw both threads through upper thread guides. Pass a thread between each set of tension discs of the thread tension assembly. Continue threading as you would for single needle sewing except where double thread guides are provided. Draw one thread through each side of the double thread guides and through each needle from front to back. Pull several inches of thread through. Thread bobbin and pick up bobbin thread as for single needle sewing.

THREAD SELECTION

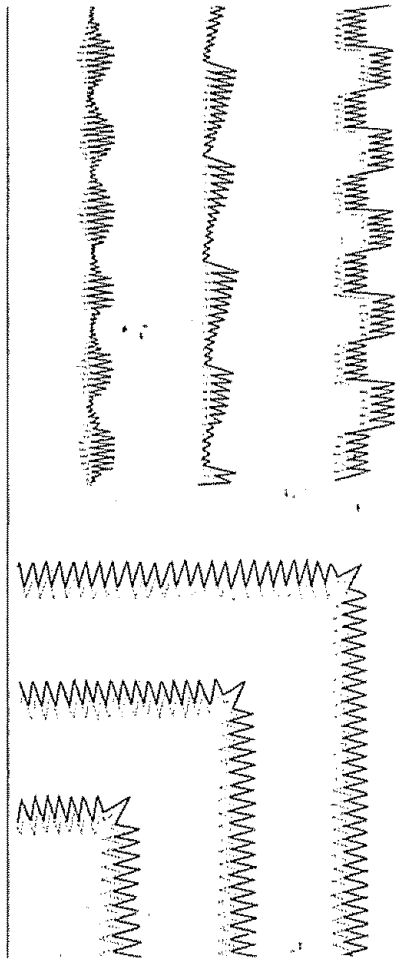
Use only mercerized sewing thread size 50 or finer. The same size thread is recommended for both upper and lower threading.

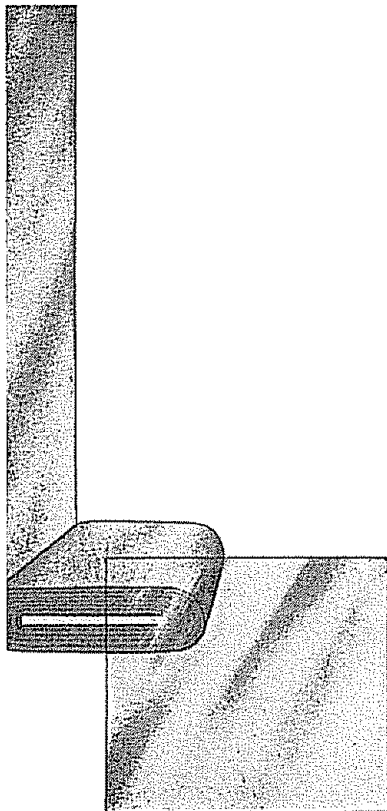
STITCHING

All decorative patterns are possible with double needle. Before starting any stitching operation, check needle drop by turning the handwheel manually. Needle should enter fabric without touching presser foot and needle plate. The stitch width control must not be advanced beyond 2½ setting.

TURNING A CORNER

To turn a square corner when stitching with a double needle, stop stitching with the longer needle tip just piercing the fabric. Raise the presser foot, shift fabric half the turn, lower presser foot and take one stitch. Raise the presser foot again, complete the turn, and begin stitching in the new direction.





SYNTHETICS

Your KENMORE will sew all the new fabrics of synthetic fiber, such as nylon, *Orlon, **Dacron, rayon, acetate, blends of these, and combinations of synthetic and natural fibers. When stitching a fabric of blended or combined fibers, handle it as you would a material of the fiber present in the largest percentage. For example, a fabric woven of 60% Orlon and 40% silk should be handled as one made entirely of Orlon.

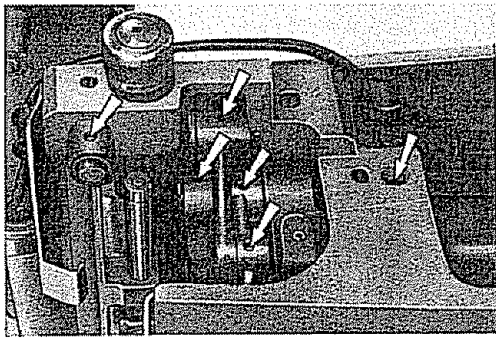
When stitching a fabric that is over 50% synthetic fiber, remember:

- a Select patterns of the loose fitting type with cap or kimono sleeves, because most synthetic fiber fabrics cannot be eased with steam pressing, and are not absorbent.
- b Use a synthetic thread.
- c Use a fine needle as recommended in chart on page 5.
- d Wind the bobbin in the usual way, but do not pass thread between tension discs. Guide thread by hand for a smoothly wound bobbin.
- e Choose the stitch length that gives the most satisfactory seam.
- f Check thread tensions by sewing on a double thickness of the fabric to be used. Usually the upper thread tension must be loosened. Sometimes both bobbin and upper thread tensions must be loosened (page 12, 13).

SEWING ON PLASTIC FILMS

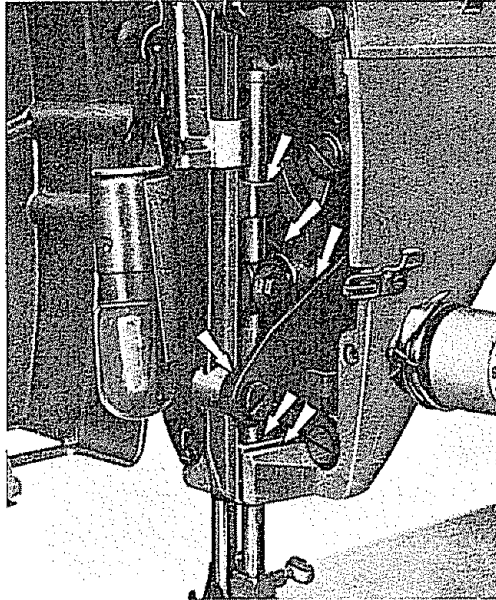
Set the machine with normal thread tensions and a large size stitch. Use a fine needle and mercerized thread. Hold plastic pieces together with cellophane tape or paper clips rather than pins. Sew corners slightly rounded rather than square.

*Trademark for Dupont's Acrylic fiber **Trademark for Dupont's polyester fiber



REPLACEMENT OF THE BELT

Push motor against machine and remove belt from motor pulley. Let motor down gently. Pull belt out over hand wheel. Install new belt reversing the above procedure.



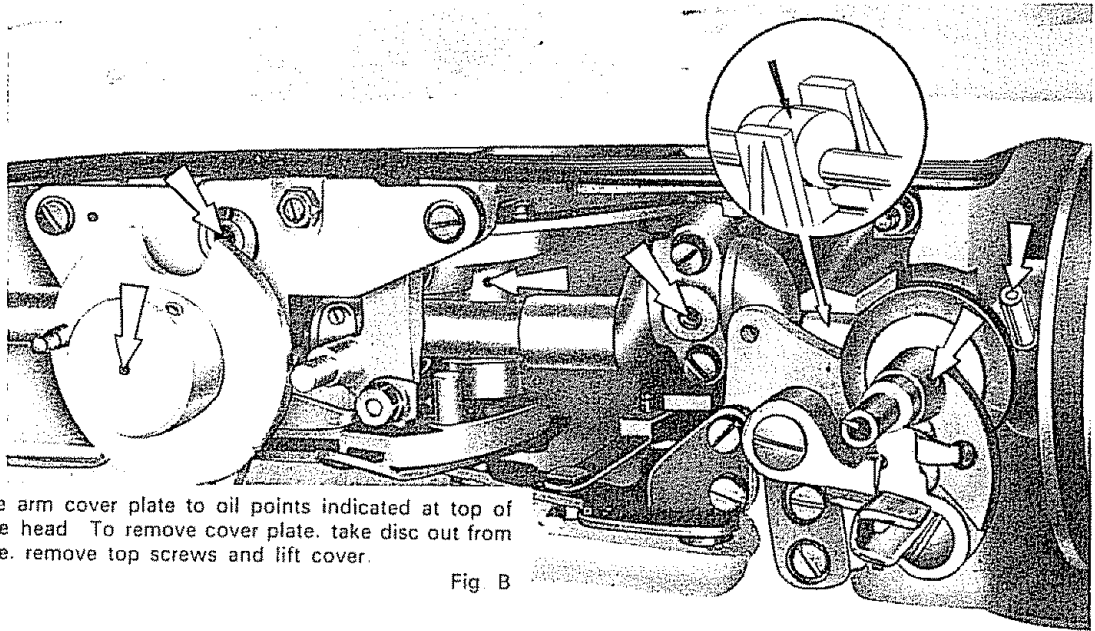
CLEANING AND OILING

Keep the moving parts free from dust and threads for quiet and efficient operation. Cleaning should be done with a small brush.

When machine runs hard or makes excessive noise, place a drop of KENMORE sewing machine oil at the points indicated in figs. A, B & C.

Swing hinged face cover plate open to oil points indicated at end of machine head.

Fig. A



Remove arm cover plate to oil points indicated at top of machine head. To remove cover plate, take disc out from machine, remove top screws and lift cover.

Fig B

It may be necessary to clean the shuttle area occasionally.

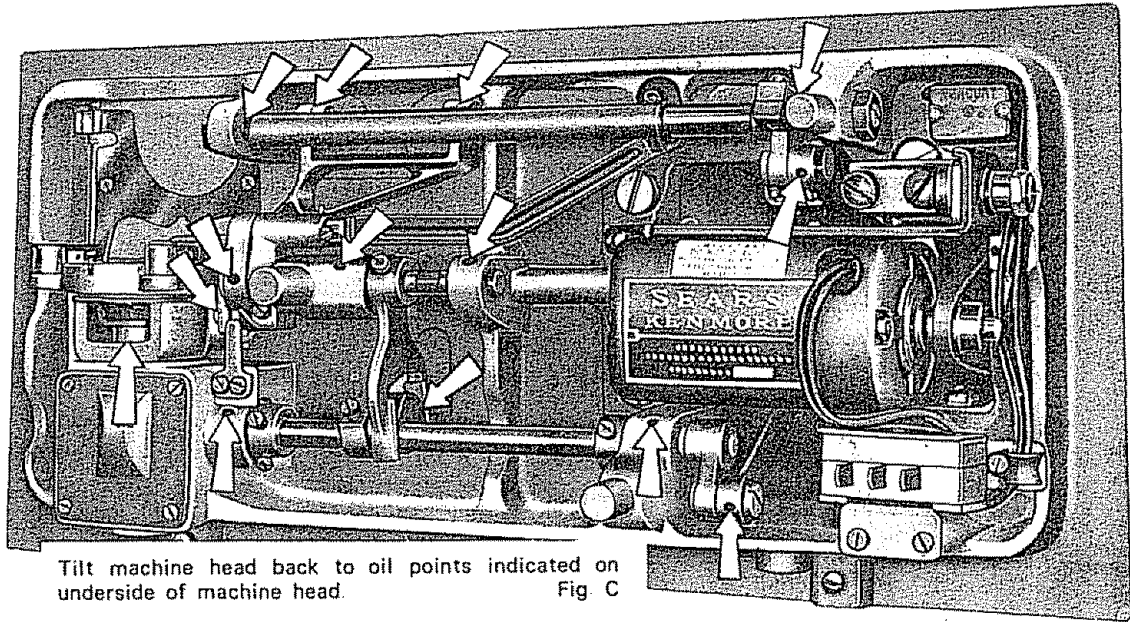
Raise the needle bar to its highest point and remove bobbin case.

Push levers sideways from the shuttle assembly and lift shuttle race cover and shuttle out by the center pin.

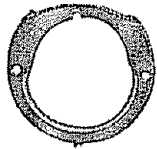
3. Clean the shuttle race of any lint or small particles of thread with a small brush.
4. Put a drop of oil on the center pin of the shuttle and on shuttle race (see arrows).



Shuttle Assembly



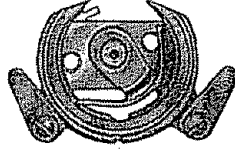
Tilt machine head back to oil points indicated on underside of machine head. Fig. C



Shuttle Race Cover



Shuttle



Shuttle Race

To reassemble, hold shuttle by center pin and fit carefully into assembly opposite the shuttle driver. Slip shuttle race cover into place. Snap the levers into position. Occasionally, remove the needle plate and clean feed dog with a soft brush.

WHAT TO DO

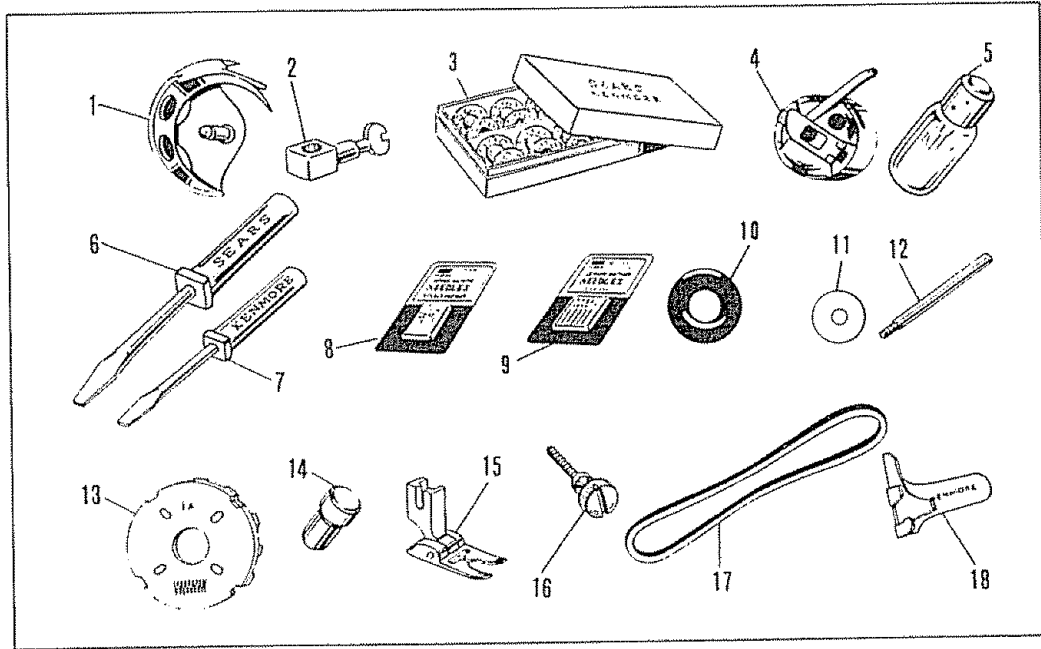
PROBLEM	PROBABLE CAUSE	CORRECTION
Irregular stitches	Incorrect size needle.	Choose correct size needle for thread and fabric (page 5).
	Improper threading	Rethread machine (page 9)
	Loose upper thread tension.	Tighten upper thread tension (page 12)
	Pulling fabric	Do not pull fabric; guide it gently.
	Light pressure on presser foot	Increase pressure on presser foot (page 10)
	Loose presser foot.	Reset presser foot (page 15)
	Unevenly wound bobbin.	Rewind bobbin (page 7)
Baking needle	Pulling fabric	Do not pull fabric; guide it gently.
	Incorrect size needle	Choose correct size needle for thread and fabric (page 5)
	Incorrect setting of needle	Reset needle (page 5).
	Loose presser foot	Reset presser foot (page 15).
Sinking of thread	Upper and lower threads not drawn back under presser foot.	Draw both threads back under presser foot (page 10)
	Feed dog down.	Raise feed dog (page 15).
Skewing	Incorrect thread tension (s)	Reset thread tension (s) (pages 12, 13)
	Light pressure on presser foot	Increase pressure on presser foot (page 10).
	Using two different sizes or kinds of thread	Upper thread and bobbin thread should be same size and kind
	Bent or blunt needle.	Insert new needle (page 5)
	Loose presser foot.	Reset presser foot (page 15).
	Fabric too sheer or too soft	Use underlay of tissue paper or tarlatan when stitching

WHAT TO DO

PROBLEM	PROBABLE CAUSE	CORRECTION
Skipping Stitches	Incorrect size needle. Bent or blunt needle. Incorrect setting of needle. Tight upper thread tension. Light pressure on presser foot	Choose correct size needle for thread and fabric (page 5). Insert new needle (page 5). Reset needle (page 5). Loosen upper thread tension (page 12). Increase pressure on presser foot (page 10).
Breaking Upper Thread	Starting to stitch too fast Improper threading Tight upper thread tension Incorrect size needle Sharp eye in needle	Start to stitch at a medium speed. Rethread machine (page 9). Loosen upper thread tension (page 12). Choose correct size needle for thread and fabric (page 5). Insert new needle (page 5).
Breaking Bobbin Thread	Improper bobbin case threading Tight bobbin thread tension. Lint in bobbin case or shuttle.	Check bobbin case threading (page 8). Loosen bobbin thread tension (page 13). Clean bobbin case and shuttle (pages 28, 29).
Fabric not Moving	Feed dog down. Light pressure on presser foot. Threads knotted under fabric.	Raise feed dog (page 15). Increase pressure on presser foot (page 10). Place both threads back under presser foot before beginning to stitch
Machine Jamming (Knocking Noise)	Thread caught in shuttle.	Disassemble and clean shuttle (pages 28, 29).

PARTS LIST

All parts listed here may be ordered through your nearest Sears or Simpsons - Sears retail store, catalog sales office or mail order house.



When ordering these parts, please be sure to mention the following references :

1. Model & serial numbers of machine shown on the nomenclature plate. See page 2.
2. Parts number(s) and description(s) here.

When ordering by mail, prices will be furnished on request, or parts will be shipped at prevailing prices and you will be billed accordingly.

<u>Ref No.</u>	<u>Parts No.</u>	<u>Description</u>	<u>Ref No.</u>	<u>Parts No.</u>	<u>Description</u>
1	47	Shuttle hook	12	8286	Thread spool pin
2	26929	Needle clamp	13	1081	Pattern disc # 1A & B
3	6862	Bobbin box with 10 bobbins		1102	Pattern disc # 2A & B
4	6510	Bobbin case		1103	Pattern disc # 3A & B
5	6797	Light bulb		1119	Pattern disc # 4A & B
6	3015	Large screw driver		1105	Pattern disc # 5A & B
7	3016	Small screw driver		1106	Pattern disc # 6A & B
8	6745	Double needle in ivory case		1107	Pattern disc # 7A & B
9	6741	#11 Single needles in yellow case	14	1222	Bobbin winder tension disc
	6742	#14 Single needles in red case	15	9363	Presser foot
	6743	#16 Single needles in green case	16	135	Presser foot thumb screw
	6744	#18 Single needles in blue case	17	6902	Motor rubber belt
10	1939	Bobbin winder rubber ring	18	6864	Needle threader
11	2273	Nylon disc			

ADJUSTING YOUR SEWING MACHINE FOR GOOD STITCHES

When your sewing machine does not sew a properly locked stitch, check the following :

1. Insert a new needle of the correct size for the thread and fabric you are using. Consult chart on page 5 for needle size.
2. The upper and bobbin thread should be matched in size and type.
3. Check threading carefully. See page 9.
4. Check the thread tension balance. Use mercerized thread, and a correct size needle for the fabric you are using. Do not try this test with synthetic thread as it will not break.

Begin with a full bobbin, properly threaded into the case. Set the stitch length at about 12 stitches per inch. Fold a 6" square of your fabric in half diagonally, forming a triangle. Make a line of stitching $\frac{1}{2}$ " from fold.

- a. If seam is puckered - both tensions are too tight.
- b. If the bottom thread lays on the fabric - tighten upper thread tension, and repeat test. See page 12, Figure 3.
- c. If the top thread lays on the fabric - loosen upper thread tension, and repeat test. See page 12, Figure 2.

Grasp the stitching and pull with a snap to make threads break.

- a. If both threads break - tensions are balanced.
- b. If neither thread breaks - both tensions are too loose.
- c. If upper thread breaks - loosen upper tension.
- d. If lower thread breaks - tighten upper tension.

Both threads do not have to break at the same place, but they should break on the same snap.

Bobbin tension may be reset by the following procedure. Start with a loose bobbin thread tension. Tighten the spring screw gradually until bobbin case and full bobbin can be gently lifted from your hand by the end of the bobbin thread.

MEMO

SEWING MACHINE

Now that you have purchased your Sewing Machine, should a need ever exist for repair parts or service, simply contact any Sears Service Center and most Sears, Roebuck and Co. or Simpsons-Sears Limited Stores. Be sure to provide all pertinent facts when your call or visit.

The model number of your Sewing Machine will be shown on your nomenclature plate on the front side of bedplate of your Sewing Machine. See page 2 for location.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

***MODEL NUMBER *NAME OF ITEM *PART DESCRIPTION**

If the parts you need are not stocked locally, your order will be electronically transmitted to a Sears Repair Parts Distribution Center for handling.

**SEARS, ROEBUCK AND CO., Chicago, IL 60684 U.S.A. and
SIMPSONS-SEARS LIMITED, Toronto, Ontario, Canada**

Printed in Japan

Part No 69503 115